Alberto Ursino

Skills

- · Python | Java | C++ | HTML5 | CSS | LaTeX | JavaScript | SQL | Django | TensorFlow | Pandas | scikit-learn
- Git | Linux | VSCode | Fork | Poetry | Ruff | DVC | Docker | AWS | MySQL | GitHub | BitBucket | Jira | Slack
- · Coding | CI/CD | AI/ML | Data Pipelines | Algorithms | Backend | DevOps | MLOps | Agile | Italian, English

Experience

ML Engineer, Intern

Infineon Technologies

Villach, Austria 12.2023 - 06.2024

- Integrated an existing DL pipeline into the company's ML framework as pilot for defect image classification using Python, Tensorflow, DVC, Amazon S3, and MLflow as part of the IPCEI project
- Led the enhancement of the DL pipeline by refactoring code, updating packages and functions for optimal performance, and incorporating new features based on user requirements
- Introduced new coding practices and enhanced the **Git** workflow for the DL pipeline. Implemented a structured branching and merging strategy, taught how to conduct effective code reviews, and established a systematic approach to document updates in **Jira** and **Bitbucket**
- Prepared detailed documentation on **Confluence** on how to use and work with the DL pipeline, delivered presentations at meetings, and engaged in frequent knowledge exchange with experts

Data Engineer, Intern

Infineon Technologies

Villach, Austria 09.2023 - 12.2023

- Developed a key chunk-based method for reading large CSV files (containing wafer test data) using **Python** and **Pandas**, enabling the upload and download of large files without memory crashes
- Developed a communication framework using **Python** that facilitates interaction between the company's software applications and Windows shared drives, allowing to download files from code by specifying their paths
- Implemented and tested an automated system for generating wafer test datasets at predefined intervals, serving as a crucial component for an upcoming software application
- Developed and tested several CRUD operations using FastAPI and SQLAlchemy, improved and implemented new frontend components in Streamlit, and tested OpenShift functionalities alongside Docker to establish a foundation for future microservices development
- Extensively used **Git** and **Bitbucket** for version control, meticulously documented all work in **Jira** and **Confluence**, and regularly presented software updates to data scientists and product engineers

Data Scientist, Intern

<u>Swegon</u>

Venice, Italy 04.2023 - 07.2023

- Developed an ML pipeline using **Python**, **DVC** and **scikit-learn**, with the goal of studying the feasibility of introducing anomaly detection in heat pump units
- Built a clustering algorithm to detect anomalies (outliers) in multi-dimensional time-series datasets
- Presented the project's potential to the entire staff, who are now actively working together with <u>Statwolf</u> to advance its development, with the goal of deploying the system into production in the near future

Software Engineer

Gloob ETF

Treviso, Italy 06.2022 - 06.2023

- Developed <u>Portafoglio Protetto</u>, a **Django**-based financial web application designed for investors. The platform has **+500 registered users** and is designed to recommend high-performing securities
- Worked with a former university colleague in an agile environment to translate client requirements into functional features using **Python**, while managing tasks and progress with **Trello**

Education

Master of Science

University of Padua

Padua, Italy 09.2021 - 07.2024

- Computer Engineering Artificial Intelligence & Robotics
- · Master's Thesis: Computational Approaches for Anomaly Detection in Heat Pump Units

Bachelor of Science

University of Padua

Padua, Italy 09.2017 - 07.2021

- Computer Engineering
- Bachelor's Thesis: Automatic Reconstruction of Dog Poses from 2D Movies